

# 2011 Ornate Box Turtle Watch Newsletter

*Turtles Project, Nongame Branch, Arizona Game and Fish Department, 5000 W. Carefree Highway, Phoenix, AZ 85086*

Photo of an ornate box turtle from Graham Co. by Norman Dong.



The Ornate Box Turtle is one of four box turtle species that inhabits North America. Unfortunately, habitat loss and fragmentation, along with other factors, have caused a decline in all box turtle populations in recent years. Box turtles are a very secretive species, and in Arizona they are often in small, fragmented populations so it is particularly challenging for conservation agencies to conduct research and

monitoring projects. In 2009 the Arizona Game and Fish Department's Turtles Project launched the Ornate Box Turtle Watch (OBTW) to enlist the help of the public in monitoring box turtles in southeastern Arizona.

## Why Public Help?

Through the use of citizen science in our OBTW project, we are now able to rely on you as our "eyes in the field," and we have gained a tremendous amount of information, including data on observations dating back to 2005 from several people who kept detailed records! After only two years, our Ornate Box Turtle Watch has received 90 observations throughout southeastern Arizona. The data provided is allowing us to create a long-term database of information on the behaviors and habitat use of the Ornate Box Turtle in Arizona. Please help us spread the word on the importance of monitoring these rare creatures by letting your friends and neighbors know about the Watch so we can look forward to more sightings in the future!

### FAST FACTS

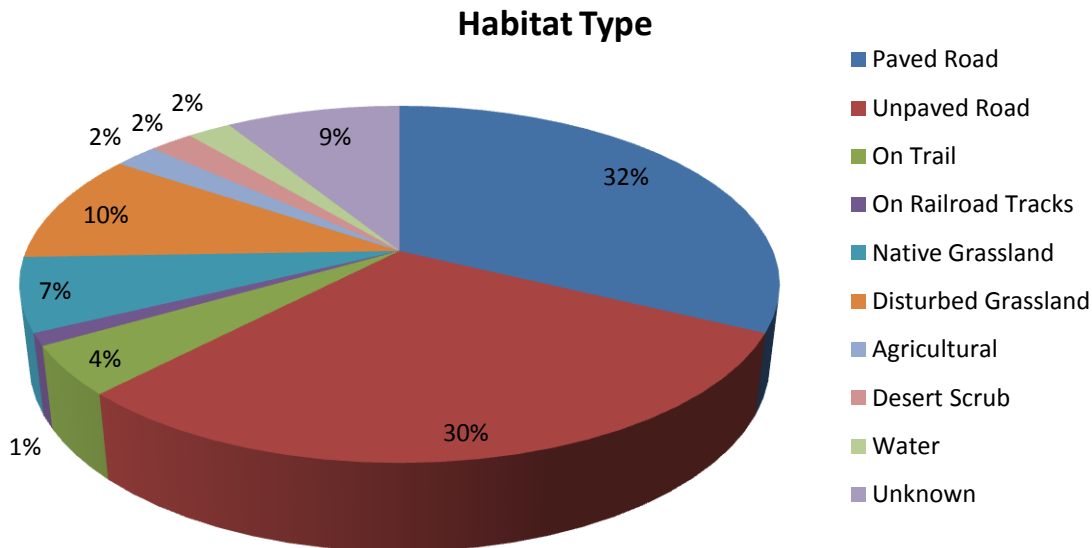
- Primarily terrestrial
- Spend large amounts of time in burrows
- Often live in active packrat middens
- Small turtle with a high domed shell and hinged plastron
- Hinged plastron allows shell to close completely like a box
- Known as the Desert Box Turtle in Arizona
- Requires loose soil to burrow
- Found in grasslands, desert scrub, or oak woodland
- Adults grow to around 6"
- Known to live 50-100 years
- Varied diet includes insects, cactus pads, and carrion
- Females lay 2-8 eggs during the monsoon season
- Females have brown or yellow eyes and retain the yellow lines on shell
- Males have bluish heads, red eyes, and yellow lines down the sides of their shell that fade with age

Photo by Richard Fray

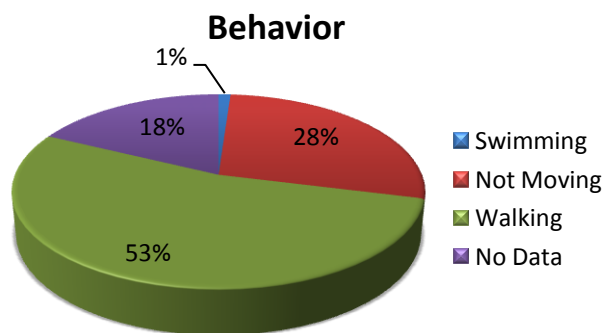


## Results

Through your participation, we expanded our knowledge of ornate box turtles in Arizona, as well as improved our database. Your observations were used to create graphs below which describe various aspects of the turtles' behavior and location. The graphs not only help us report the data, but also provide information to our participants on when and where the turtles have been found.

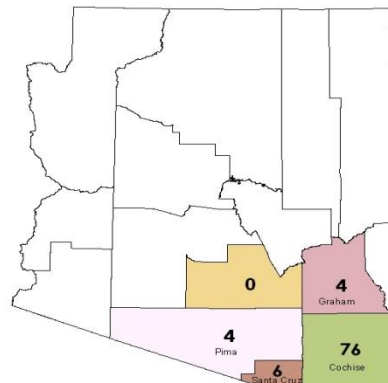


As with many other reptiles, the majority of box turtles observations occurred either on a paved or unpaved road. This is not surprising given that they are much easier to observe in the open. Because box turtles are reclusive and spend much of their time in burrows, the data submitted in the OBTW likely represent a bias towards those turtles that were in the open.

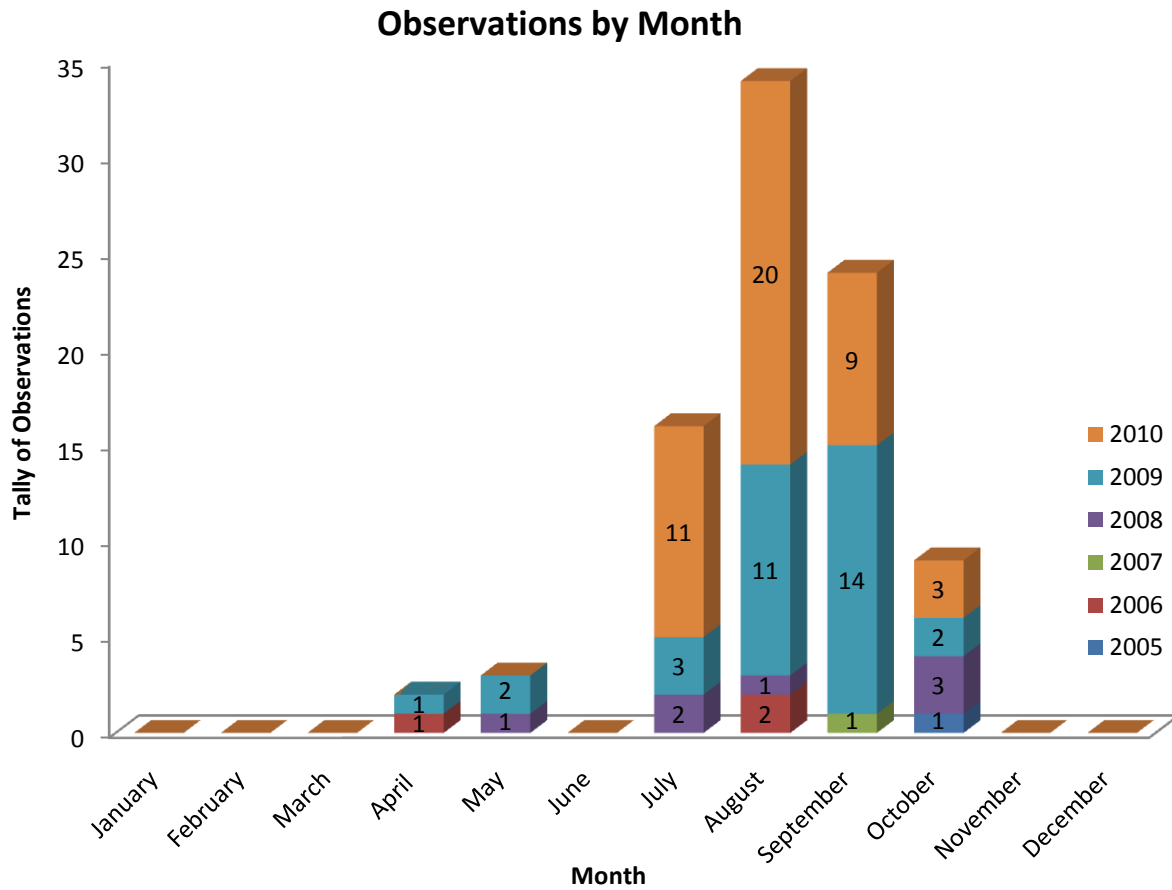


Over half of the box turtles observed were in the open, indicating when they do come up to the surface they prefer to be out and about.

## Observations by County



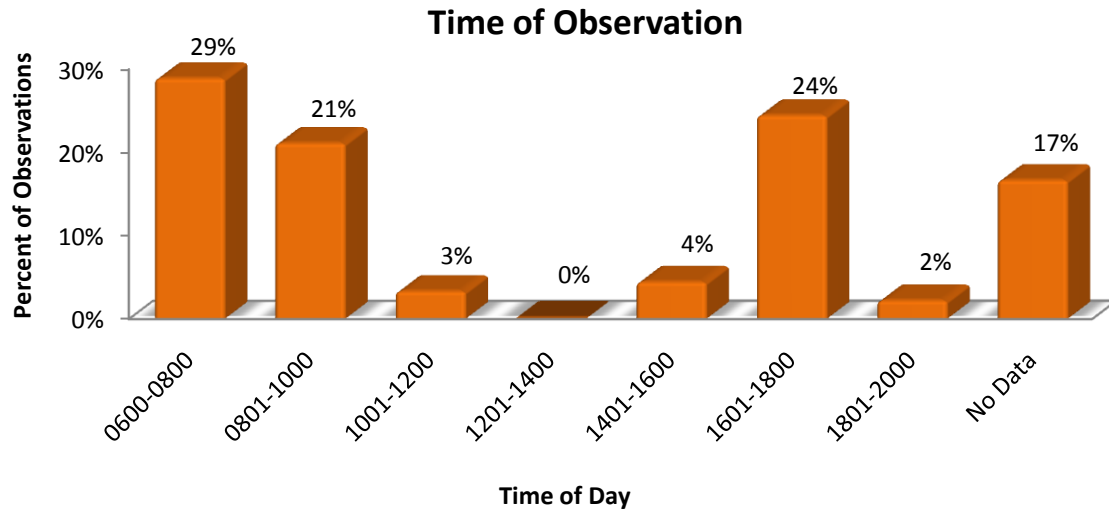
The majority of observations were from Cochise Co., which is the stronghold of the species in Arizona, but there have been multiple observations on the periphery of the species' range here.



Based on the OBTW observations, box turtles are most active during the summer monsoon months. It is during the rainy season that they mate and feed most frequently.



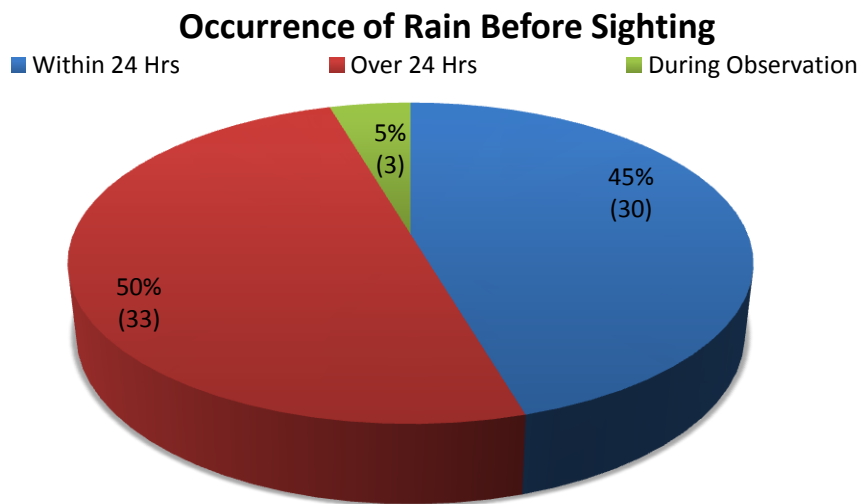
Photos of box turtle, Texas horned lizard, and Gila monster by OBTW participant Renee Kitko.



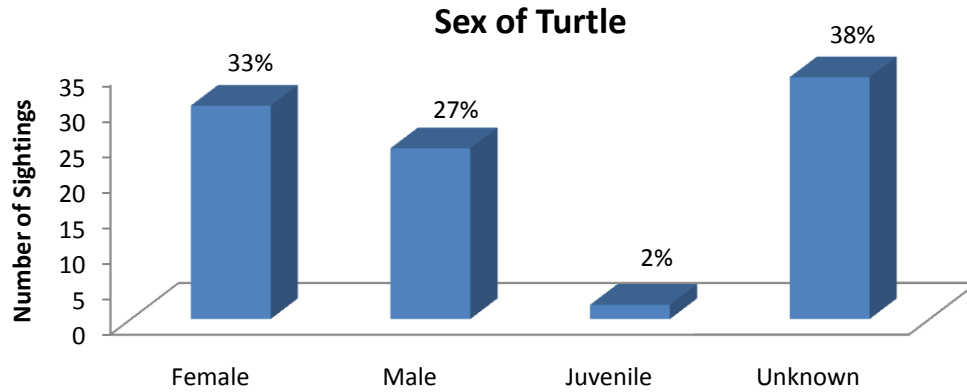
The OBTW observations provide further evidence that turtles are most active in the early morning and late afternoon.



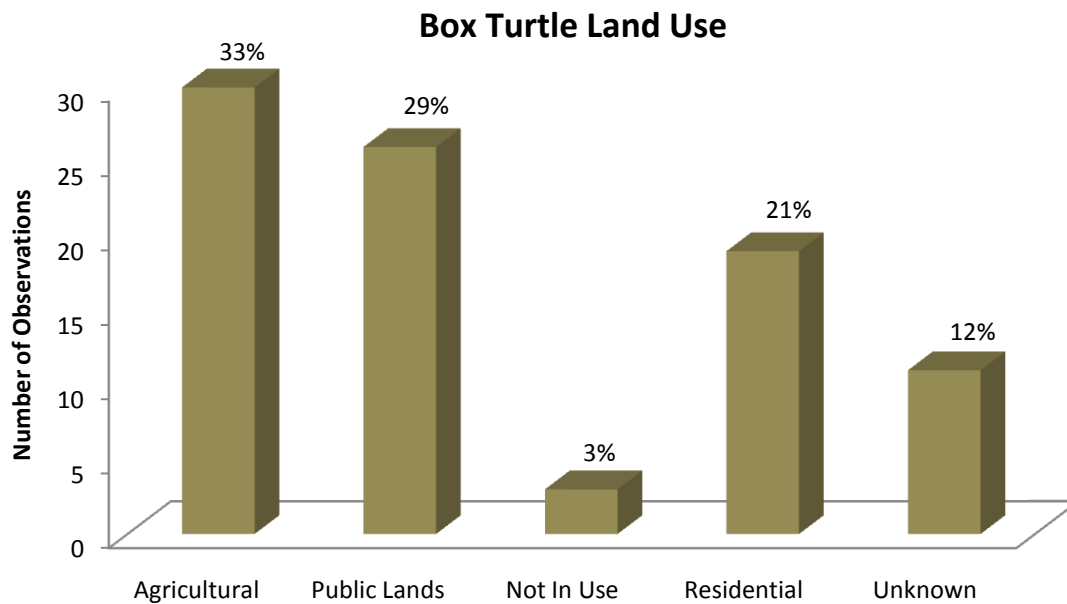
Male Ornate Box Turtle in southeastern Arizona. Photo by Thomas R. Jones.



OBTW observations indicate that box turtle activity may be dependent on rainfall, as half of the box turtles observed by participants were found either during rain or just after rain.



Because participating the OBTW does not grant anyone permission to handle box turtles, determining the sex of a box turtle can be difficult, hence the number of turtle observations of unknown sex. The observation data do suggest a higher percentage of female than male turtles observed by participants. This may be due to differences in activity between male and female box turtles, rather than a true difference in the number of males and females in southeastern Arizona.




The majority of box turtle observations were made on land used for agricultural purposes, followed by public lands, with the majority of these lands being used for, or in conjunction with, ranching.




## Ornate Box Turtle Regulations

In 2005, the Ornate Box Turtle was put on a closed season which made it illegal to handle or collect them from the wild. Participating in the Ornate Box Turtle Watch does not allow you to handle the species. The information needed for the observation forms does not require, nor authorize, any handling of the turtles. Determining the sex can be made through looking at the eyes and coloration of the turtles.



**ORNATE BOX TURTLE WATCH**  
**CITIZEN SCIENTIST PROJECT**  
  
Report box turtle observations to  
the Arizona Game and Fish  
Department  
  
For forms or more information, visit  
[www.azgfd.gov/boxturtlewatch](http://www.azgfd.gov/boxturtlewatch)  
  
For questions, contact the Arizona Game and Fish  
Department Turtles Project at (623) 236-7504



If a turtle is attempting to cross a road, you may pick up the turtle to move it across the road. Only lift the turtle high enough so its feet just leave the ground, and be sure to keep the turtle level and place it 20 feet on the other side of the road in the direction it was headed.

**Never** relocate a turtle a distance greater than is necessary to get it across a road, take one home, or release one that you have had in captivity. Box turtles may live their entire lives within 3 to 100 acres. Box turtles are most familiar with food and shelter sites in their home range, and if removed and relocated some distance away will generally not stay in the new location. Instead, these displaced turtles will travel long distances in order to return to their home range, often dying in the process.



A box turtle observed near Willcox, Arizona. Photo by Richard Fray.

Visit the Ornate Box Turtle Watch website for the recently updated Observation Form:

[www.azgfd.gov/boxturtlewatch](http://www.azgfd.gov/boxturtlewatch)

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